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Modified) PTO/SB/21 (6-98)  
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# TRANSMITTAL FORM

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DEC 13 2001

Total Number of Pages in This Submission

Application Number

09/905,666

Filing Date

#5 July 13, 2001

First Named Inventor

Lorraine J. Giver

Group Art Unit

Unassigned

Examiner Name

Unassigned

Attorney Docket Number

02-106820US

## ENCLOSURES (check all that apply)

- ☐ Fee Transmittal Form
- ☐ Fee Attached
- ☐ Amendment / Response
- ☐ After Final
- ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☒ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
- ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

- ☐ Assignment Papers (for an Application)
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition Routing Slip (PTO/SB/69) and Accompanying Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Small Entity Statement
- ☐ Request for Refund

- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Additional Enclosure(s) (please identify below):

receipt acknowledgment  
postcard  
1449  
Cited References

### Authorization to Charge Deposit Account

Please charge Deposit Account No. 50-0893 for any additional fees associated with this paper or during the pendency of this application, including any extensions of time for consideration of the documents enclosed.

Remarks

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm  
or  
Individual name

Jonathan Alan Quine Reg. No. 41261, The Law Offices of Jonathan Alan Quine

Signature

*Jonathan Alan Quine*

Date

11-7-01

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: November 7, 2001

Typed or printed name

Amelia Groth

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*Amelia Groth*

Date

11/7/01



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Assistant Commissioner for Patents,  
Washington, D.C. 20231,  
On November 7, 2001

The Law Offices of Jonathan Alan Quine

By 

Amelia Groth

Attorney Docket No. 02-106820US  
Client Ref. No. 0184.310US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Lorraine J. Giver, *et al.*

Application No.: 09/905,666

Filed: July 13, 2001

For: NOVEL LIPASE GENES

Examiner: Unassigned

Art Unit: Unassigned

INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR § 1.97 and  
§ 1.98

Assistant Commissioner for Patents  
Washington, D.C. 20231

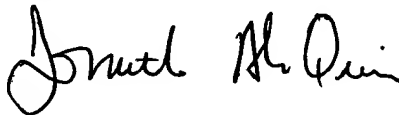
Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 50-0893. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Jonathan Alan Quine", written in a cursive style.

Jonathan Alan Quine  
Reg. No. 41,261

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JAQ:ag



|   |                          |                           |
|---|--------------------------|---------------------------|
| Substitute for form 1449A-B/PTO<br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br><i>(use as many sheets as necessary)</i> | <b>Complete if Known</b> |                           |
|   | Application Number       | <b>09/905,660</b>         |
|   | Filing Date              | <b>July 13, 2001</b>      |
|   | First Named Inventor     | <b>Lorraine J. Gliver</b> |
|   | Group Art Unit           | <b>Unassigned</b>         |
|   | Examiner Name            | <b>Unassigned</b>         |
|   | Attorney Docket Number   | <b>02-106820US</b>        |

| U.S. PATENT DOCUMENTS |             |                      |                         |  |  |   |
|-----------------------|-------------|----------------------|-------------------------|--|--|---|
| Examiner<br>Initials  | Cite<br>No. | U.S. Patent Document |                         | Name of Patentee or Applicant of<br>Cited Document | Date of Publication of<br>Cited Document<br>MM-DD-YYYY | Pages, Columns, lines,<br>Where Relevant Passages<br>or Relevant Figures Appeal |
|                       |             | Number               | Kind Code<br>(if known) |  |  |   |
|                       | AA          | 5,512,463            |                         | Stemmer  | 04-30-1996   |   |
|                       | AB          | 5,514,588            |                         | Varadaraj  | 05-07-1996   |   |
|                       | AC          | 5,605,793            |                         | Stemmer  | 02-25-1997   |   |
|                       | AD          | 5,763,239            |                         | Short et al.                                       | 06-09-1998   |   |
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|                       | AH          | 5,824,469            |                         | Horwitz et al.                                     | 10-20-1998   |   |
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|                       | AK          | 5,834,252            |                         | Stemmer et al.                                     | 11-10-1998   |   |
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|                       | AP          | 5,928,905            |                         | Stemmer, et al.                                    | 07-27-1999   |   |
|                       | AQ          | 5,939,250            |                         | Short, Jay M.                                      | 08-17-1999   |   |
|                       | AR          | 5,939,300            |                         | Robertson, et al.                                  | 08-17-1999   |   |
|                       | AS          | 5,942,430            |                         | Robertson, et al.                                  | 08-24-1999   |   |
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|                       | AV          | 5,958,751            |                         | Murphy, et al.                                     | 09-28-1999   |   |
|                       | AW          | 5,962,258            |                         | Mathur, et al.                                     | 10-05-1999   |   |
|                       | AX          | 5,962,283            |                         | Warren et al.                                      | 10-05-1999   |   |
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|                       | BA          | 6,001,574            |                         | Short et al.                                       | 12-14-1999   |   |
| Examiner<br>Signature |             |                      |                         | Date<br>Considered                                 |  |   |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

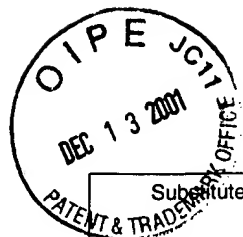


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| Substitute for form 1449A-B/PTO<br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br><i>(use as many sheets as necessary)</i> | <b>Complete if Known</b> |                        |             |
|   | Application Number       | 09/905,660             |             |
|   | Filing Date              | July 13, 2001          |             |
|   | First Named Inventor     | L rrairie J. Gliv r    |             |
|   | Group Art Unit           | Unassigned             |             |
|   | Examiner Name            | Unassigned             |             |
|   |                          | Attorney Docket Number | 02-106820US |

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|--|----|-----------|--|---------------|------------|--|
|  | BB | 6,004,788 |  | Short         | 12-21-1999 |  |
|  | BC | 6,030,779 |  | Short         | 02-29-2000 |  |
|  | BD | 6,054,267 |  | Short         | 04-25-2000 |  |
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| Examiner<br>Initials     | Cite<br>No. | Foreign Patent Document |          |                         | Name of Patentee or<br>Applicant of Cited Document | Date of Publication<br>of Cited Document<br>MM-DD-YYYY | Pages, Columns, Lines,<br>Where Relevant Passages<br>or Relevant Figures Appear | T |
|                          |             | Office                  | Number   | Kind Code<br>(if known) |  |  |   |   |
|                          | BO          | WO                      | 97/07205 |                         | Novo Nordisk A/S                                   | 02-27-1997   |   |   |
|                          | BP          | WO                      | 97/20078 |                         | Affymax<br>Technologies                            | 06-05-1997   |   |   |
|                          | BQ          | WO                      | 97/25410 |                         | Novo Nordisk A/S                                   | 07-17-1997   |   |   |
|                          | BR          | WO                      | 97/35957 |                         | Maxygen, Inc.                                      | 10-02-1997   |   |   |
|                          | BS          | WO                      | 97/35966 |                         | Maxygen, Inc.                                      | 10-02-1997   |   |   |
|                          | BT          | WO                      | 97/44361 |                         | Recombinant<br>Biocatalysis Inc.                   | 11-27-1997   |   |   |
|                          | BU          | WO                      | 97/48416 |                         | Recombinant<br>Biocatalysis, Inc.                  | 12-24-1997   |   |   |
|                          | BV          | WO                      | 97/48717 |                         | Recombinant<br>Biocatalysis Inc                    | 12-24-1997   |   |   |
|                          | BW          | WO                      | 97/48794 |                         | Recombinant<br>Biocatalysis Inc                    | 12-24-1997   |   |   |
|                          | BX          | WO                      | 98/00526 |                         | Recombinant  | 01-08-1998   |   |   |
| Examiner<br>Signature    |             |                         |          |                         |  | Date<br>Considered                                     |   |   |

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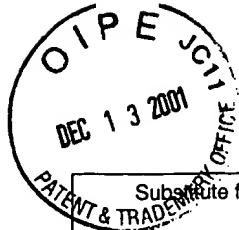


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|   | Filing Date              | <b>July 13, 2001</b>       |
|   | First Named Inventor     | <b>L rrairie J. Gliver</b> |
|   | Group Art Unit           | <b>Unassign d</b>          |
|   | Examiner Name            | <b>Unassigned</b>          |
|   | Attorney Docket Number   | <b>02-106820US</b>         |

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|--|----|----|-----------|--|------------|--|--|
|  |    |    |           | Biocatalysis Inc                             |            |  |  |
|  | BY | WO | 98/01581  | Recombinant<br>Biocatalysis Inc              | 01-15-1998 |  |  |
|  | BZ | WO | 98/13485  | Maxygen, Inc.                                | 04-02-1998 |  |  |
|  | CA | WO | 98/13487  | Maxygen, Inc.                                | 04-02-1998 |  |  |
|  | CB | WO | 98/24799  | Diversa Corp.                                | 06-11-1998 |  |  |
|  | CC | WO | 98/27230  | Maxygen, Inc.                                | 06-25-1998 |  |  |
|  | CD | WO | 98/28416  | Novo Nordisk A/S                             | 07-02-1998 |  |  |
|  | CE | WO | 98/31837  | Maxygen, Inc.                                | 07-23-1998 |  |  |
|  | CF | WO | 98/36080  | The Dow Chemical<br>Company                  | 08-20-1998 |  |  |
|  | CG | WO | 98/41622  | Novo Nordisk A/S                             | 09-24-1998 |  |  |
|  | CH | WO | 98/41623  | Novo Nordisk A/S                             | 09-24-1998 |  |  |
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|  | CJ | WO | 98/42832  | California Institute of<br>Technology        | 10-01-1998 |  |  |
|  | CK | WO | 98/48034  | Diversa Corp.                                | 10-29-1998 |  |  |
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|  | CM | WO | 99/07837  | Diversa Corp.                                | 02-19-1999 |  |  |
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|  | CO | WO | 99/10472  | Diversa Corp.                                | 03-04-1999 |  |  |
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|  | CR | EP | 0911396A2 | Maxygen, Inc.                                | 04-28-1999 |  |  |
|  | CS | WO | 99/21979  | Maxygen, Inc.                                | 05-06-1999 |  |  |
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|  | CW | WO | 99/29902  | California Institute of<br>Technology et al. | 06-17-1999 |  |  |

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| Examiner<br>Signature |  | Date<br>Considered |  |
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|  | Group Art Unit         | Unassign d        |
|  | Examiner Name          | Unassigned        |
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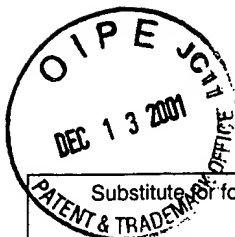
|  |    |    |           |  |                     |            |  |  |
|--|----|----|-----------|--|---------------------|------------|--|--|
|  | CX | EP | 0934999A1 |  | Maxygen, Inc.       | 08-11-1999 |  |  |
|  | CY | WO | 99/41368  |  | Maxygen, Inc.       | 08-19-1999 |  |  |
|  | CZ | WO | 99/41369  |  | Maxygen, Inc.       | 08-19-1999 |  |  |
|  | DA | WO | 99/41383  |  | Maxygen, Inc.       | 08-19-1999 |  |  |
|  | DB | WO | 99/41402  |  | Maxygen, Inc.       | 08-19-1999 |  |  |
|  | DC | WO | 99/45154  |  | Diversa Corp.       | 09-10-1999 |  |  |
|  | DD | WO | 99/57128  |  | Maxygen, Inc.       | 11-11-1999 |  |  |
|  | DE | WO | 99/65927  |  | Maxygen, Inc.       | 12-23-1999 |  |  |
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|  | DI | WO | 00/58517  |  | Diversa Corporation | 10-05-2000 |  |  |
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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

| Examiner Initials | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T |
|-------------------|----------|---|---|
|                   | DJ       | Chang, C., et al. (1999) "Evolution of a cytokine using DNA family shuffling." <u>Nature Biotechnology</u> 17:793-797.  |   |
|                   | DK       | Christians, F.C. et al., (1999) "Directed evolution of thymidine kinase for AZT phosphorylation using DNA family shuffling." <u>Nature Biotechnology</u> 17:259-264.  |   |
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|                   | DM       | Crameri et al., (1993) "10(20)-Fold aptamer library amplification without gel purification," <u>Nuc. Acids Res.</u> 21(18):4410.  |   |
|                   | DN       | Crameri, A. & Stemmer W.P.C. (1995) "Combinatorial multiple cassette mutagenesis creates all the permutations of mutant and wildtype cassettes." <u>Biotechniques</u> 18:194-195.   |   |
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|                   | DQ       | Crameri, A. et al., (1997) "Molecular evolution of an arsenate detoxification pathway by DNA shuffling." <u>Nature Biotechnology</u> 15:436-438   |   |

|                    |  |                 |  |
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| Examiner Signature |  | Date Considered |  |
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|  | Examiner Name          | Unassigned        |
|  | Attorney Docket Number | 02-106820US       |

|    |   |  |
|----|---|--|
| DR | Crameri, A. et al., (1998) "DNA shuffling of a family of genes from diverse species accelerates directed evolution." <i>Nature</i> 391:288-291.   |  |
| DS | Gates, C.M. et al., (1996) "Affinity selective isolation of ligands from peptide libraries through display on a lac repressor 'headpiece dimer'." <i>Journal of Molecular Biology</i> 255:373-386.      |  |
| DT | Minshull, J., Stemmer, W.P.C. (1999) "Protein evolution by molecular breeding." <i>Current Opinion in Chemical Biology</i> 3:284-290.   |  |
| DU | Ness, J. et al., (1999) "DNA shuffling of subgenomic sequences of subtilisin." <i>Nature Biotechnology</i> 17:893-896.  |  |
| DV | Patten, P.A. et al., (1997) "Application of DNA Shuffling to Pharmaceuticals and Vaccines." <i>Current Opinion in Biotechnology</i> 8:724-733.  |  |
| DW | Pelletier, Joelle N., (2001) "A Rachitt for our toolbox" <i>Nature Biotechnology</i> vol. 19, p. 314-315  |  |
| DX | Stemmer, W.P.C. (1994) "DNA Shuffling by random fragmentation and reassembly: In vitro recombination for molecular evolution." <i>PNAS</i> 91:10751   |  |
| DY | Stemmer, W.P.C. (1994) "Rapid evolution of a protein in vitro by DNA shuffling." <i>Nature</i> 370:389-391.   |  |
| DZ | Stemmer, W.P.C. (1995) "The Evolution of Molecular Computation." <i>Science</i> 270:1510  |  |
| EA | Stemmer, W.P.C. (1995) "Searching Sequence Space." <i>Bio/Technology</i> 13:549-553.  |  |
| EB | Stemmer, W.P.C. (1996) "Sexual PCR and Assembly PCR." In: <i>The Encyclopedia of Molecular Biology</i> . VCH Publishers, New York. pp. 447-457.   |  |
| EC | Stemmer, W.P.C. & Soong, N.W. (1999) "Molecular breeding of viruses for targeting and other clinical properties." <i>Tumor Targeting</i> 4:59-62.   |  |
| ED | Zhang, J. et al., (1997) "Directed evolution of an effective fucosidase from a galactosidase by DNA shuffling and screening." <i>Proceedings of the National Academy of Sciences, USA</i> 94:4504-4509. |  |

|                       |  |                    |  |
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